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How to replace a hotend assembly (CORE One)

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STEP 1 Introduction

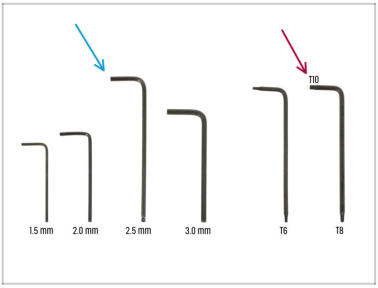
- This guide will take you through the **Hotend assembly replacement** on your Original Prusa **CORE One**.

ⓘ The following instructions are compatible with all Prusa Nozzle diameters.

- All necessary parts are available in our eshop prusa3d.com.

  Note that you have to be logged in to have access to the spare parts section.

STEP 2 Tools necessary for this guide



- **Please prepare tools for this guide:**
  - 2.5mm Allen key
  - T10 Key / Screwdriver

STEP 3 Printer Preparation (Part 1)

- Close the printer's door.
- Unload the filament. Visit the menu **Filament** and select **Unload filament.**
- Unload the filament from the printer.
- Remove the filament spool from the printer.
- ⚠ Ensure the printer has completely cooled down.
  - On the printer screen, navigate to *Preheat -> COOLDOWN* and wait for the temperatures to drop to ambient levels. This may take several minutes.

STEP 4 Printer Preparation (Part 2)



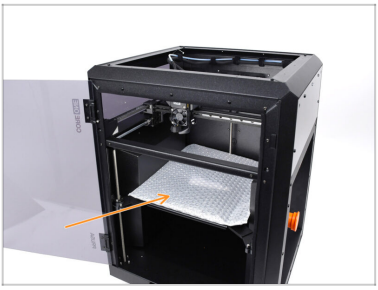
- Open the menu **Control > Move Axis > Move Z** and set it to 100mm or more.
- Wait until the heatbed moves down.
- Turn the printer off using the switch on the back.
- Disconnect the printer from power.

STEP 5 Top Cover Removal



- Open the printer. From the inside, reach for the nylon rivet on the front right of the top cover. Push it out to unlock it.
- Then, remove the rivet from the outside.
- Remove the remaining nylon rivets on the top cover using the same technique.
- Remove the top cover.

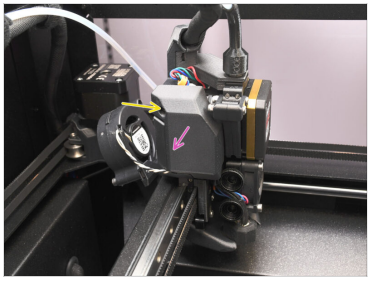
STEP 6 Heatbed Protection

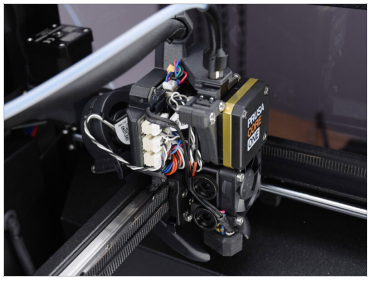


⚠ Before proceeding any further, it is recommended to protect the heatbed first!

- Use a piece of fabric or other material thick enough to cover the heatbed. This will ensure you won't damage (scratch) the surface during the process.

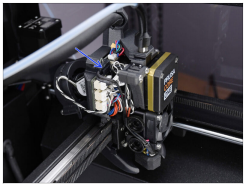
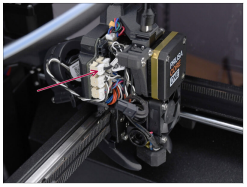
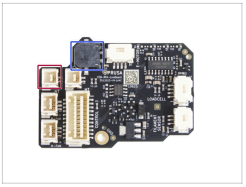
STEP 7 Nextruder Uncovering





- Let's move onto the left side of the Nextruder.
- Using the 2.5mm Allen key, remove the M3x10 screw holding the side cover.
- Remove the cover.

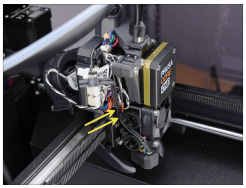
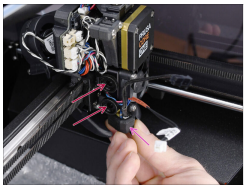
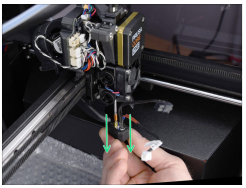
STEP 8 Cables Disconnecting

⚠ Each connector has a safety latch. **It is necessary to press the latch before disconnecting.** Otherwise, the connector may get damaged.

- Disconnect the hotend heater cable.
- Disconnect the hotend thermistor cable.

STEP 9 Hotend Assembly Removal

- Remove the hotend cables from the cable guide.
- Grasp the hotend with your hand.
- Use your other hand to loosen the two thumb screws. **There is no need to remove them completely**, a few turns are enough.

  ⓘ Watch out, the hotend assembly may fall out!
- Slide out the hotend assembly from the heatsink.

STEP 10 Hotend Assembly Parts Preparation

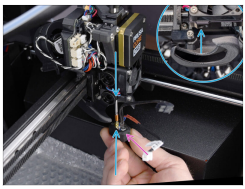
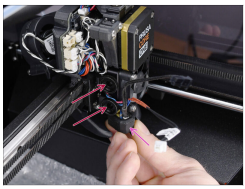
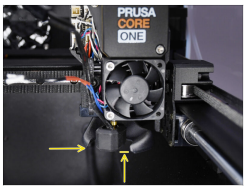
- **For the following steps, please prepare:**
- Hotend assembly (1x)

  The CORE One hotend assembly has a Nextruder Silicone Sock installed by default. It is optional, and you can remove it at any time.

  - For more information, read the article Nextruder Silicone Sock.

  The default nozzle on the CORE One is the 0.4mm HF, (High Flow version) labeled CHT

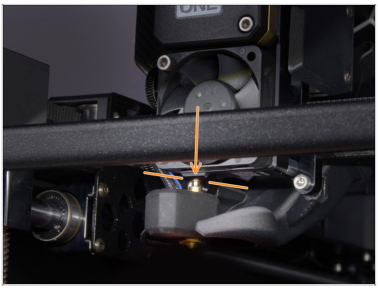
STEP 11 Hotend Insertion

- Locate the corresponding opening on the bottom of the extruder heatsink and fully insert the hotend into the heatsink.
- At the same time, keep the hotend cables pointing to the front, at a slight angle.

  ⓘ Ensure that there is enough free space between the new hotend assembly and the fan shroud.
- Keep pushing the hotend assembly upward and tighten both thumbscrews to secure it in place.
- Ensure the hotend is fully inserted into the heatsink. It should align as shown in the picture and must not protrude below the fan shroud.

STEP 12 Nozzle Insertion Check

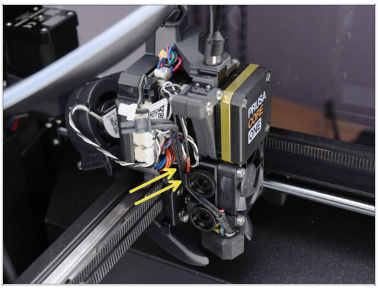


- Verify that the nozzle is **fully inserted** into the heatsink. The copper ring on the nozzle should not be visible if properly seated.

  ⚠ If not fully inserted, it can cause poor heat transfer, potentially leading to nozzle clogs.

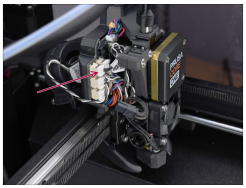
  ⓘ To adjust the nozzle position, loosen the thumbscrews, reposition the nozzle, and then retighten the screws, while pushing the hotend assembly up.

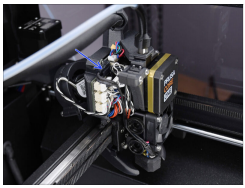
STEP 13 Hotend Cables Guidance

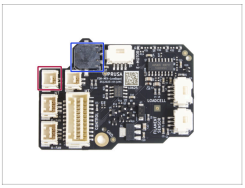


- Locate the cable guide (plastic hook) behind the thumb screws. Guide the thermistor cable through the channel first. Then insert the hotend heater cable.

STEP 14 Cables Connection

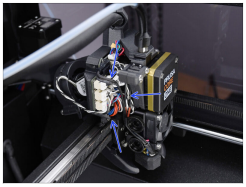
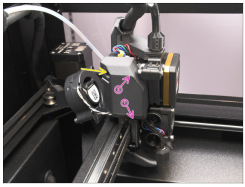
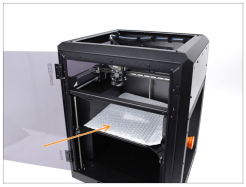






- Connect the hotend thermistor to the top left slot on the LoveBoard.
- Connect the hotend heater to the black slot on the upper part of the LoveBoard.

STEP 15 Nextruder Cover

- Organize the cables to ensure they do not protrude.
- Attach the cover to the left side of the Nextruder assembly.
  - Hook it at the bottom first.
  - Push it towards the Nextruder.
- Fix the cover in place using the M3x10 screw.
- Remove the protective material from the heatbed.

STEP 16 Top Cover

- Now, we can reinstall the top cover.
- Align the cover with the metal frame in the far-right corner.
- Align the cover with the recess in the front part as well
- Secure the cover in place using two nylon rivets in the marked openings.

STEP 17 Turning the Printer On

- Close the door.
- Connect the printer to electricity.
- Turn the printer on.

STEP 18 Nozzle Set Up

⚠ This step is important only if you changed your nozzle diameter or type.

- Visit the **Settings > Hardware > Printhead** menu
- Select the **Nozzle diameter** you are using (e.g. 0.25 / 0.3 / 0.4 / 0.5 / 0.6 / 0.8)

  ⓘ On CORE One, the 0.40 mm nozzle is the stock size.
- Turn on the S**ilicone sock** option if you are using one.
- Select a nozzle type.

  ⓘ On CORE One, the High Flow nozzle is a default.

STEP 19 Final check

- To verify the connections, navigate to **Control > Temperature > Nozzle Temperature** and set it to above 200°C.
- Return to the main screen and check the bottom bar to ensure the temperature is rising as expected.

Great job! You can now resume using your printer.

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